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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
EHICHIOYA, FRED I	

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/916,388	GILLESPIE ET AL.	
	Examiner	Art Unit	
	Fred I. Ehichioya	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 62 are pending in this Office Action.

Response to Arguments

2. Applicants argue:

Anthony neither teaches nor suggests the element "generating a review template" (page 3, paragraph 1).

Applicants' argument filed September 19, 2005, with respect to claims 1 - 62 has been fully considered and are persuasive. Therefore Anthony is hereby withdrawn as a reference.

Allowable Subject Matter

3. The indicated allowability of claims 44, 50, 55 and 60 is withdrawn in view of the newly discovered reference(s) to claims 44, 50, 55 and 60. Rejections based on the newly cited reference(s) follow.

Claim Objections

4. The indicated Objection of claims 10, 15, 20, 20 – 25, 27 – 32, and 34 - 38 is withdrawn in view of the newly discovered reference(s). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 42 – 45, and 52 - 56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 IV.B.2.(b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application within the technological arts.

MPEP 2106.II.A

A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Warmerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994).

Claims 1, 42 – 45, and 52 - 56 in view of the above cited MPEP sections, are not statutory because they merely recite a number of computing steps without producing any tangible result and/or being limited to a practical application within the technological arts. **The use of a computer has not been indicated.**

These claims do not indicate use of hardware on which the software runs to perform the steps recited in the body of the claim. Software or program can be stored on a medium and/or executed by a computer. In other words the software must be *computer-readable.* **The use of a computer is not evident in the claim**.

MPEP 2106.IV.B.1(a) refers to "computer-readable" medium with computer program encoded on it."

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 2, 2, 5, 26, 33, 45, 46, 51, 52, 56, 57 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over NPL "Mixed Waste Focus Area/Characterization Monitoring Sensor Technology Nondestructive Waste Assay

Capability Evaluation" by Becker G.K. et al (hereinafter "Becker") in view of USPN 5,961,610 issued to Kelly et al (hereinafter "Johnson").

Regarding claims 1, 45, 46, 51, 52, 56, 57 and 61, Becker teaches a system for automated independent technical review, the system comprising:

a host system for receiving an assay result of a radioactive waste container (see page 5, sections 2.2.2 and 2.2.3), determining whether said assay result is within a predetermined parameter based on said generating said review template (see page 14, section 4), determining whether a review is required if said assay result is not within said predetermined parameter (see page 14, section 4.1); and rejecting said assay result if said review is not required and said assay result is not within said predetermined parameter (see page 47, section 5, paragraph 6);

a network coupled to said host system (see page 20, section 4.4.2); and

a database coupled to said host system for storing data relating to said automated independent technical review (see page 26, section 4.4.3 and Table 10).

Becker does not explicitly teach generating a review template as claimed.

Kelly teaches generating a review template (see column 3, lines 22 – 29);

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Kelly's teaching of "a review template" would have allowed Becker's system an overlap detection and correction algorithm which, in one form is integrated into a review

template editor for creating review template as suggested by Kelly at column 5, lines 15 - 18.

Further and with respect to review template generation, the automatic overlap detection and correction enables increased ease of use by accelerating manual cell alignment tasks, see column 5, lines 35 - 38.

Regarding claims 2, Becker teaches said assay result is a gamma radiation assay result (see page 20, section 4.4.2).

Regarding claim 5, Becker teaches determining the ... radioactive waste container (see page 8, section 3.2).

Determining whether ... based on said identity of said material (see page 13 and page 14, section 4.1, paragraph 2).

Regarding claim 26, Becker teaches wherein said determining whether said assay result is within said predetermined parameter includes determining a nuclide totals result for an isotope (see page iv, paragraph 3).

Regarding claim 33, Becker teaches wherein said determining whether said assay result is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if a count rate corresponding to said isotope is greater than about 5 times an error value (see page 14, section 4.2).

8. Claims 3 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kelly and further in view of further in view of USP 6,800,452 issued to McNeil et al (hereinafter "McNeil").

Regarding claim 3, Becker and Kelly teach the claimed subject matter as discussed in claim 1.

McNeil teaches generating ... said review is required (see column 15, lines 45 - 67).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because McNeil's teaching of "generating ... said review is required" would have allowed Becker and Kelly's system a method for performing simultaneous assay includes the steps of simultaneously distributing a predetermined amount of a liquid solution to each of a plurality of samples, simultaneously exposing the wells to excitation radiation, simultaneously detecting signals emitted from the wells using a detector comprising a single imaging means, and simultaneously controlling and coordinating the distribution, excitation, and detection using a computerized controller as suggested by McNeil (see Abstract).

Further, the detection system would enable automated assay of large numbers of test samples quickly, efficiently, accurately, and economically (see column 2, lines64 – 67).

Regarding claim 47, McNeil teaches a user system coupled to said network (see Fig.1); and

said user system accessing said host system via said network (see column 13, lines 44 - 51).

9. Claims 4, 6 – 23, 34 – 41 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kelly and further in view of NPL "Total Measurement Uncertainty for Nondestructive Assay of Transuranic Waste at the Waste Receiving and Processing Facility, Initial Release date 03/03/99 on EDT-623513, Revision 7" by Welsh Terri et al. (hereinafter "Welsh").

Regarding claim 4, Becker and Kelly teach the claimed subject matter as discussed in claim 1.

Becker and Kelly teach wherein said generating said review template (see Kelly: column 3, lines 22 – 29) includes:

Becker teaches generating a requirement field including predetermined parameter (see page 2); and

generating a rejection field including a second instruction based on said determining whether said review is required (see page 49, section 6, paragraph 5).

Becker or Kelly does not explicitly teach generating an assay result data field as claimed.

Welsh teaches generating an assay result data field including said assay result (see page 26, section 5.4.2.2);

generating a review field including a first instruction based on said determining whether said review is required (see Fig. 4a)

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Welsh's teaching of "generating an assay result data field including said assay result" would have allowed Becker and Kelly's system to establish a known and unbiased nondestructive waste assay data and information based that can be used to support the end user in terms of available capability and identify technological deficiencies for development consideration as suggested by Welsh (see page 1, section 1.1).

Regarding claim 6, Welsh teaches said determining whether said assay result is within said predetermined parameter includes determining whether a relative error for a plutonium isotope is within said predetermined parameter (see page 47, section 5, paragraph 5) .

Regarding claim 7, Welsh teaches wherein said determining whether a relative error for a plutonium isotope is within said predetermined parameter includes:

determining an absolute 3-sigma error for said plutonium isotope (see fig. 4c and page 23, section 5.4.1 paragraph 4);

determining a range for the weight percent of said plutonium isotope based on said absolute 3-sigma error (see Fig. 4c and page 23, section 5.4.1 paragraph 3 – 5).

determining that said assay result is not within said predetermined parameter if an accepted weapons grade weight percent is not within said range (see see page 13, sections 5.2 – 5.7.2.1).

Regarding claim 8, Welsh teaches using a default isotopic if no measurement for said plutonium isotope is available (see page 38, section 5.7.2).

Regarding claim 9, Welsh teaches wherein said determining whether said relative error for said plutonium isotope is within said predetermined parameter includes using a default isotopic parameter if said relative error is greater than about 70 percent (see page 16, Table 1.A and page 32, section 5.6.5.1).

Regarding claim 10, Becker teaches wherein said relative error is based on a plutonium isotope for Pu^{240} (see page 14, section 4.1, paragraph 1 and page 16, paragraph 3).

Regarding claim 11, Welsh teaches wherein said determining.... is within said predetermined parameter (see page 32, section 5.6.5.1).

Regarding claims 12 and 62, Welsh teaches wherein said determining whether said density of said radioactive waste container is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if said density is greater than about 2.5 grams per cubic centimeter (see page 16, Table 1.A).

Regarding claim 13, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes determining whether a radioactive material in said radioactive waste container is lumped (see page 22, section 5.3).

Regarding claim 14, Welsh teaches wherein said determining whether... the ratio of two gamma energies (see page 22, section 5.3).

Regarding claim 15, Welsh teaches wherein said comparing the ratio of said two gamma energies includes:

determining the mass ratio of a 413.71 kev gamma energy to a 129.294 kev gamma energy (see page 49, Table 10);

determining that said assay result is not within said predetermined parameter if said ratio is greater than about 2.5 (see page 40, section 5.7.2.4.2).

Regarding claim 16, Welsh teaches said determining whether said assay result is within said predetermined parameter includes comparing a total plutonium mass result to a qualification mass value (see page 39, sections 5.7.2.2 – 5.7.2.4.2).

Regarding claim 17, Welsh teaches said comparing includes:

comparing said total plutonium mass result to a low qualification mass value (see page 38,section 5.7.2);

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is less than said low qualification mass (see page 38, section 5.7.2 paragraph 2);

comparing said total plutonium mass result to a high qualification mass value (see page 38, section 5.7.2.1); and

determining that said assay result is not within said predetermined parameter if said total plutonium mass result is greater than said high qualification mass value (see page 38, section 5.7.2.1 and Table 8).

Regarding claim 18, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if a total plutonium weight percent is greater than about 10 percent (see page 35, section 5.7.1.1).

Regarding claim 19, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if a criticality safety value is greater than about 220 grams (see page 1, section 1).

Regarding claim 20, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if a fissile gram equivalent at 2 sigma is greater than about 220 grams (see Fig. 4c and page 23, paragraphs 1 and 4).

Regarding claim 21, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes using a nuclide total result to compare a mass ratio of a first isotope and a second isotope (see page 47, section 5)

Regarding claim 22, Becker teaches wherein said first isotope is Pu^{239} and second isotope is Am^{241} (see page 48, paragraph 2).

Regarding claim 23, Becker teaches wherein said using a nuclide total result to compare said mass ratio of a first isotope and a second isotope includes determining that said assay result is not within said predetermined parameter if said mass ratio is less than about 200 (see page 48, paragraph 2).

Regarding claim 34, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes determining that said assay result is not within said predetermined parameter if a 400 keV transmission source peak intensity is less than about 1 percent of a calibrated intensity (see page 49).

Regarding claim 35, Becker teaches wherein said determining whether said assay result is within said predetermined parameter includes:

defining a segment of said radioactive waste container (see page 7, sections 3.1 and 3.2),

Welsh teaches determining whether a transmission source peak for said segment of said radioactive waste container is a low transmission source peak having an energy of less than about 400 keV (see page 49); and

determining that said assay result is within said predetermined parameter if said low transmission source peak is greater than about 0.1 percent of a calibrated intensity (see page 22, section 5.3).

Regarding claim 36, Becker teaches wherein said determining whether said assay result is within said predetermined parameter includes:

determining that said assay result is not within said predetermined parameter if a total number of counts in said pulser peak is less than a preset fraction of an initial count rate (see page 15, section 4.3).

Welsh teaches detecting the presence of a pulser peak (see page 22, section 5.3);

determining that said assay result is not within said predetermined parameter if said pulser peak is not detected (see page 22, section 5.3).

Regarding claim 37, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes:

detecting the presence of a reference source peak (see page 22, section 5.3);

determining that said assay result is not within said predetermined parameter if said reference source peak is not detected (see page 22, section 5.3); and

determining that said assay result is not within said predetermined parameter if a total number of counts in said reference source peak is less than about 50 percent of a calibrated rate (see page 49, Table 10).

Regarding claim 38, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes:

defining a segment of said radioactive waste container (see page 32, section 5.6.5.1);

determining a live time result for said segment (see page 32, section 5.6.4);

determining a real time result for said segment (see page 32, section 5.6.4); and

determining that said assay result is not within said predetermined parameter if

said live time result divided by said real time result is less than about 0.3 (see page A10, Table A.1).

Regarding claim 39, Welsh teaches wherein said determining whether said assay result is within said predetermined parameter includes:

Defining a first segment and a second segment of said radioactive waste container (see page 32, section 5.6.4),

detecting a first radioactivity level of said first segment (see page 32, section 5.6.5.1);

detecting a second radioactivity level of said second segment (see page 32, section 5.6.5.1);

detecting a total radioactivity level of said radioactive waste container (see page 26, section 5.4.3), and

determining that said assay result is not within said predetermined parameter if said first radioactivity level and said second radioactivity level combined is greater than about 50 percent of said total radioactivity level (see page 32, section 5.6.5.1).

Regarding claim 40, Welsh teaches wherein said first segment is at a bottom end of said radioactive waste container (see page 31, section 5.6.3).

Regarding claim 41, Welsh teaches wherein said first segment is disposed against said second segment (see page 31, section 5.6.3).

10. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kelly, Welsh and further in view of USPN 4,737,234 issued to Francis H. Ruddy (hereinafter "Ruddy").

Regarding claim 24, Becker, Kelly or Welsh does not explicitly teach second isotope is Np^{237} as claimed.

Ruddy teaches wherein said first isotope is Pu^{239} and said second isotope is Np^{237} (see column 5, lines 49 – 51).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Ruddy's teaching of "first isotope is Pu^{239} and said second isotope is Np^{237}" would have allowed Becker, Kelly and Welsh's system to provide a method and apparatus for producing a high fluence neutron dosimeter capable of eliminating the need for electroplating techniques and the related high purity chemical requirements as suggested by Ruddy in column 2, lines 42 – 46).

Regarding claim 25, Becker teaches wherein said using a nuclide total result to compare said mass ratio of a first isotope and a second isotope includes determining that said assay result is not within said predetermined parameter if said mass ratio is less than about 125 (see page 48, paragraph 2).

11. Claims 27 - 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kelly and further in view Ruddy.

Regarding claim 27, Becker or Kelly does not explicitly teach said isotope is Np^{237}. Ruddy teaches wherein said isotope is Np^{237} (see column 5, lines 55 – 56).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Ruddy's teaching of "said isotope is Np^{237}" would have allowed Becker and Kelly's system to provide a method and apparatus for producing a high fluence neutron dosimeter capable of eliminating the need for electroplating techniques and the related high purity chemical requirements as suggested by Ruddy in column 2, lines 42 – 46).

Regarding claims 28 and 30, Becker teaches wherein said determining said nuclide totals result is not performed for said isotope if the presence of said isotope is confirmed (see page iv, paragraph 3).

Regarding claim 29, Ruddy teaches wherein said isotope is U^{235} (see column 1, lines 54 – 57).

12. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kelly and further in view USPN 5,386,439 issued to Leroy et al (hereinafter "Leroy").

Regarding claim 31, Becker or Kelly does not explicitly teach where said isotope is U^{233}.

Leroy teaches wherein said isotope is U^{233} (see column 6, Table 2).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Leroy's teaching of "said isotope is U^{233}" would have allowed Becker and Kelly's system to reduce the risk of proliferation associated with operation of those spectral shift reactors using bars containing fertile material for reducing the amount of moderating water in the core during a first phase of the operating cycle, without detrimentally affecting the neutronics as suggested by Leroy (see Summary).

Regarding claim 32, Leroy teaches wherein said isotope is U^{238} (see column 6, Table 2).

13. Claims 42, 43, 48, 49, 53, 54, 58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Welsh.

Regarding claims 42, 48, 53 and 58, Becker teaches a system for automated independent technical review, the system comprising:

a host system for receiving an assay result of a radioactive waste container containing a radioactive material (see page 5, sections 2.2 and 2.3, paragraph 5), determining a relative error for a plutonium isotope based on said assay result (see page 47, section 5, paragraph 5), determining whether said relative error is within a first predetermined parameter (see page 47, section 5, paragraph 5), rejecting said assay result if said first review is not required and said relative error is not within said first predetermined parameter (see page 47, section 5, paragraph 5),

a network coupled to said host system (see page 20, section 4.4.2); and

a database coupled to said host system for storing data relating to said automated independent technical review (see page 26, section 4.4.3 and Table 10).

Becker does not explicitly teach determining whether said radioactive material is lumped as claimed.

Welsh teaches determining whether a first review is required if said relative error is not within said first predetermined parameter (see page 32, section 5.6.5.1), determining whether said radioactive material is lumped (see page 22, section 5.3) and determining whether a second review is required if said radioactive material is lumped (see page 22, section 5.3).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Welsh's teaching of "determining whether said radioactive material is lumped" would have allowed Becker's system to establish a known and unbiased nondestructive waste assay data and information based that can be used to support the end user in terms of available capability and identify technological deficiencies for development consideration as suggested by Welsh (see page 1, section 1.1).

Regarding claims 43, 49, 54 and 59, Becker teaches 49. (Original) A system for automated independçnt technical review, the system comprising:

a host system for receiving an assay result of a radioactive waste container containing a radioactive material (see page 5, sections 2.2.2 and 2.2.3).

a network coupled to said host system (see page 20, section 4.4.2); and

a database coupled to said host system for storing data relating to said automated independent technical review (see page 26, section 4.4.3 and Table 10).

Becker does not explicitly teach determining a total plutonium weight percent based on said assay result as claimed.

Welsh teaches determining a total plutonium weight percent based on said assay result see page 35, section 5.7.1.1), rejecting said assay result if said total plutonium weight percent is greater than about 10 percent (see page 35, section 5.7.1.1), determining criticality safety value based on said assay result (see page 38, section

5.7.2.1, paragraph 2) and rejecting said assay result if said criticality safety value is greater than about 220 grams (see page 38, section 5.7.2.1).

14. Claims 44, 50, 55 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Ruddy.

Regarding claims 44, 50, 55 and 60, Becker teaches 50. (Original) A system for automated independent technical review, the system comprising:

a host system for receiving an assay result of a radioactive waste container containing a radioactive material (see page 5, sections 2.2.2 and 2.2.3), determining that said assay result requires a review if the ratio Pu^{239} isotope and a Am^{241} isotope is compared by using a nuclide total result and said ratio is less than about 200 (see page 48, paragraph 2), determining that said assay result requires a review if a count rate corresponding to an U^{233} isotope is greater than about 5 times an error value (see page 14, section 4.2);

a network coupled to said host system (see page 20, section 4.4.2); and

a database coupled to said host system for storing data relating to said automated independent technical review (see page 26, section 4.4.3 and Table 10).

Becker does not explicitly teach the ratio of a Pu^{239} and Np^{237} as claimed.

Ruddy teaches determining that said assay result requires a review if the ratio of a Pu^{239} and Np^{237} isotope is compared by using a nuclide total result and said ratio is less than about 125 (see column 5, lines 49 – 51).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Ruddy's teaching of "determining that said assay result requires a review if the ratio of a Pu^{239} and Np^{237} isotope" would have allowed Becker's system to provide a method and apparatus for producing a high fluence neutron dosimeter capable of eliminating the need for electroplating techniques and the related high purity chemical requirements as suggested by Ruddy in column 2, lines 42 – 46).

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 571-272-4034. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Patent Examiner
Art Unit 2162

October 14, 2005

SHAHID ALAM
PRIMARY EXAMINER